Title of Article in Conference Proceedings: Distribution of Organochlorine Pesticide Residues in Epipelic and Benthic Sediments from Lagos Lagoon.

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Abstract: Epipelic and benthic sediment samples were collected from Agboyi Creek, Oworonshoki, Ajara, Ogogoro and Tarkwa Bay in Lagos Lagoon and analyzed for organochlorine pesticide (OCP) residues using a gas chromatograph coupled with electron capture detector (GC-ECD). Sampling was conducted 4 times at the sites during the dry season months of December 2008, February 2009 and the wet season months of May, September 2009 to study the effects of seasonal variation on the samples. Sediment samples were subjected to cold extraction and clean-up. OCP residues were detected in all the samples though the levels did not show any particular pattern between the epipelic and benthic sediment during the dry and wet seasons. Detection limits of the OCPs ranged between 1.43 ng/g and 10.29 ng/g, indicating the sensitivity of the gas chromatograph at the operating conditions. The residue levels were higher in the lagoon than in the creek while a higher concentration of the residues was observed during the dry season due to reduced dilution effect. The mean recoveries of the residues ranged between 90.14 and 98.15% hence validating the methodology used in the study. Levels of OCPs residues in the sediment were within permissible residue limits.